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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/493,917	01/28/2000	Chris Warren Patten	50N3426(3020/5)	2820

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EXAMINER

YENKE, BRIAN P

ART UNIT

PAPER NUMBER

2614

DATE MAILED: 11/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No.	Applicant(s)
	09/493,917	PATTEN ET AL. <i>(M)</i>
	Examiner	Art Unit
	BRIAN P. YENKE	2614

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1) Responsive to communication(s) filed on Amendment (18 September 2002).

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4) Claim(s) 1-21 is/are pending in the application.

4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5) Claim(s) \_\_\_\_\_ is/are allowed.

6) Claim(s) 1-21 is/are rejected.

7) Claim(s) \_\_\_\_\_ is/are objected to.

8) Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on \_\_\_\_\_ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on \_\_\_\_\_ is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some \* c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

1) <input type="checkbox"/> Notice of References Cited (PTO-892)	4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). _____
2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)	5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)
3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____	6) <input type="checkbox"/> Other: _____

## DETAILED ACTION

1. Applicant's arguments filed 18 September 2002 have been fully considered but they are not persuasive.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-21 rejected under 35 U.S.C. 103(a) as being unpatentable over **Marflak et al., US 6,323,915** and **Teraoka et al., US 5,537,149** and applicants admitted prior art.

In considering claims 1-2, 10-11 and 19-20,

*1) the claimed receiving an image having a first aspect ratio...* is met by video receiver 312 (Fig 3) which receives either a 16:9 or 4:3 video signal

*2) the claimed displaying said image on a display having a second aspect ratio* is met by display screen 322 (Fig 3) which displays a video signal in the 4:3 format

However, Marflak remains silent on the display having sensors which detect the image. Marflak discloses a system which utilizes an edge/border modification signal in order to control the display system to display the received video signal into a modified aspect ratio.

The use of sensors on a display to control the displayed picture is well-known in the art. As disclosed by applicant's Fig 1, 2 which includes sensors 108/208, 110/210, 112/212 and 114/214 to ascertain the position of the displayed image and assist in the adjustment of the displayed picture.

Teraoka et al., US 5,537,149, discloses a Display Device which receives either a 4:3 or 16:9 video signals and displays the received signal on a 16:9 and 4:3 display device respectively. Teraoka discloses a system which expands or compresses the respective video signal, where the video signal is size adjusted to maintain the distance from the original vertical and horizontal center.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marflak which discloses a system which receives either a 16:9 or 4:3 video signal on a 4:3 display, with conventional sensors as admitted by applicant's Fig 1, 2, in order to properly align/display the received signal while maintaining the center position of the original image as disclosed by Teraoka.

In considering claims 3, 12 and 21,

Marflak remains silent on a display which has a 16:9 aspect ratio. Marflak discloses display system which display either a 4:3 or 16:9 receive video signal on a 4:3 display device.

The displaying of a 4:3 aspect ratio on a 16:9 display is well-known in the art. As disclosed by Teraoka, which discloses the displaying of a received 4:3 and 16:9 video signal, onto a 16:9 and 4:3 display, respectively.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention, to modify Marflak which discloses receiving both a 4:3 and 16:9 aspect ratio video signal and displays the signal on a 4:3 display, with Teraoka et al, in order to properly display a received signal where a users display device is a 16:9 aspect ratio display.

In considering claims 4-9, and 13-18,

As stated above in claim 1, Marflak remains silent on the use of conventional sensors as disclosed in applicant's Fig 1 and 2, and also in the step size being in centimeters. Marflak discloses a system which utilizes an edge/border modification signal in order to control the display system to display the received video signal into a modified aspect ratio.

The use of sensors on a display to control the displayed picture is well-known in the art. As disclosed by applicant's Fig 1, 2 which includes sensors 108/208, 110/210,

112/212 and 114/214 to ascertain the position of the displayed image and assist in the adjustment of the displayed picture.

Teraoka et al., US 5,537,149, discloses a Display Device which receives either a 4:3 or 16:9 video signals and displays the received signal on a 16:9 and 4:3 display device respectively. Teraoka discloses a system which expands or compresses the respective video signal, where the video signal is size adjusted to maintain the distance from the original vertical and horizontal center. Although, Teraoka remains silent on the size of the adjustments, it is known that pixels range in size in terms of millimeters and thus a centimeter step (increment) would provide an adjustment in terms of multiple pixels.

Therefore, it would have been obvious to one of ordinary skill in the art, to modify Marflak, which discloses the conversion of a received first aspect ratio video signal, into a 2<sup>nd</sup> displayed aspect ratio, with applicant's admitted prior art and Teraoka, in order to determine the position of the adjusted 2<sup>nd</sup> aspect ratio video signal, by using conventional display sensors in order to maintain the center position, both horizontally and vertically, of the original 1<sup>st</sup> aspect ratio receive signal.

### ***Applicant's Arguments***

- a) Applicant states that neither of the cited references, teach or suggest a method for performing auto convergence in which a *received image is moved so that each sensor can detect the corresponding side of the image*.
- b) Applicant states that the examiner relies on impermissible hindsight.

***Examiner's Response***

a) The examiner disagrees. It is noted by the examiner, the applicant discloses "The movement of the image can be in the form of shifting the entire image towards the sensor, or alternatively, stretching the image so that the edges of the image can be detected by the sensors." Marflak discloses a system which utilizes an edge/border modification signal in order to control the display system to display the received video signal into a modified aspect ratio. Marflak also discloses in the background that a 16:9 aspect ratio picture was vertically stretched to cover the black bands at the top and bottom of the 4:3 aspect ratio television display, however <sup>in</sup> the prior art methods the processed image was noticeably distorted from the original image.

Teraoka et al, discloses a system which uses non-linear compression and expansion in order to display a received 4:3 and 16:9 on a 16:9 and 4:3 screen respectively, and to eliminate the "burnt screen". Teraoka also discloses stretching/compressing the image non-linearly to maintain the center portion of the original signal.

The use of sensors on a display to control the displayed picture is well-known in the art. As disclosed by applicant's Fig 1, 2 which includes sensors 108/208, 110/210, 112/212 and 114/214 to ascertain the position of the displayed image and assist in the adjustment of the displayed picture.

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify Marflak, which discloses the conversion of a received

first aspect ratio video signal, into a 2<sup>nd</sup> displayed aspect ratio and preventing screen burnout from the display of signals with different aspect ratios, with applicant's admitted prior art and Teraoka, in order to determine the position of the adjusted 2<sup>nd</sup> aspect ratio video signal, by using conventional display sensors in order to maintain the center position, both horizontally and vertically, of the original 1<sup>st</sup> aspect ratio receive signal, to therefore provide a received signal onto a display where the aspect ratios may differ, and to prevent a burnt screen.

b) In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

### ***Conclusion***

3. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brian Yenke whose telephone number is (703) 305-9871. The examiner work schedule is Monday-Thursday, 0730-1830 hrs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's Supervisor, John W. Miller, can be reached at (703)305-4795.

**Any response to this action should be mailed to:**

Commissioner of Patents and Trademarks  
Washington, D.C. 20231

**or faxed to:**

**(703) 872-9314**

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist). Any inquiry of a general nature or

relating to the status of this application or proceeding should be directed to the  
Technology Center 2600 Customer Service Office whose telephone number is  
(703)305-4700.

B.P.Y.

05 NOVEMBER 2002



JOHN MILLER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2600